REMARKS

In response to the Official Action mailed May 21, 2003, Applicants amend their application and request reconsideration. No claims are added or cancelled so that claims 2-4, 6-15, 17, and 19 remain pending.

The drawings were objected to as not showing every feature of the claims, namely the second pair of inner wall surfaces converging as described in claims 4 and 9. This rejection is respectfully traversed.

The questioned claim limitation is fully supported by the description in the patent application as filed most clearly with respect to Figures 20 and 22. The Examiner's attention is directed to page 74, lines 1-14 of the patent application. The first pair of converging walls, which are generally vertical in Figure 22, are described in that passage. The second pair of walls are transverse to the first pair of walls. The objection to the drawing should be withdrawn.

All examined claims were rejected as indefinite based upon language within claim 15 concerning the term "longitudinal direction". Claim 15 has been amended for clarity.

As shown in many figures of the patent application, for example Figures 6(a) in conjunction with Figure 6(b), and Figures 7(a)-8(b), 10, 12(a), 12(b) and 20-23, the measuring duct in the post has a non-circular fluid introduction port. The fluid introduction port is elongated, i.e., has a larger dimension, in one direction than in a transverse direction. The language of the claim is fully supported by the original disclosure. The longitudinal direction is given reference number 94 in Figures 34(a)-34(f) and is described expressly in the passage from page 86, line 14 through page 87, line 16 of the patent application. The same passage defines the "transverse" direction. The elongated shape has been defined more specifically in amended claim 15, the only pending independent claim, in a way that is entirely consistent with the cited disclosure. In view of the clarifying amendment of claim 15, the rejection as to form as to all examined claims is overcome.

The assertion that claims 4 and 9 were unclear as to how the second pair of inner wall surfaces are converging is overcome with regard to the explanation concerning the drawing objection. The description of Figure 22 appearing at page 74 of the patent application, and Figures 20 and 22 show and describe an example of these walls. In these claims, the first pair of converging inner wall surfaces are *not* described as having a curved profile. It is the second pair of generally smooth converging inner surfaces that are described as having a curved profile. Thus, the first pair of generally smooth, converging inner wall surfaces may

simply be planar, as shown in the figures, so there is no possibility that the claim is indefinite or cannot be understood.

All examined claims were rejected as anticipated by Uramachi et al (U.S. Patent 6,240,775, hereinafter Uramachi). This rejection is respectfully traversed.

The inventors of the present application are identical to the inventors of Uramachi and Uramachi and the present patent application are commonly assigned. The present patent application was filed within one year of the filing date of Uramachi. Therefore, Uramachi cannot be prior art pursuant to 35 USC 102(b), as cited by the Examiner.

Uramachi cannot be prior art pursuant to 35 USC 102(a) because that patent does not demonstrate that the present invention was known "by others" before the invention by the present applicants, the inventors of Uramachi. For the same reason, Uramachi cannot be prior art under 35 USC 102(e). Thus, the rejection must be withdrawn because Uramachi cannot be an anticipatory prior art under any potentially applicable section of 35 USC 102.

Even if Uramachi were available as prior art, to anticipate the claims, Uramachi would have to describe every element of the claims. Uramachi fails that stringent test at least with regard to the shape of the fluid introduction port and therefore cannot anticipate any pending claim. It is sufficient to note that the fluid introduction ports in Uramachi are shown only as circular and therefore cannot have any elongated shape.

Reconsideration, withdrawal of the rejection, and allowance of all pending claims are earnestly solicited.

Respectfully submitted,

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JAW/nc
Amendment or ROA - Regular (Revised 5/1/03)

PATENT
Attorney Docket No. 400388/TSI

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

HAMADA et al.

Application No. 09/425,630

Art Unit: 2855

Examiner: C. Dickens

Filed: October 22, 1999

For: FLOW RATE MEASURING DEVICE

APPENDIX OF PENDING CLAIMS AFTER AMENDMENTS MADE IN RESPONSE TO OFFICE ACTION DATED JULY 16, 2003

2. The device according to Claim 15, wherein the measuring duct extends substantially linearly in a direction from an upstream side of the fluid passage toward a downstream side of the fluid passage.

3. The device according to Claim 15, wherein the fluid introduction port has a length in the longitudinal direction and a width in a transverse direction, transverse to the longitudinal direction, the longitudinal length being at least twice the width.

4. The device according to Claim 15, wherein the measuring duct includes a first pair of generally smooth, converging inner wall surfaces, narrowing toward a downstream direction of the fluid flow, each of the smooth inner wall surfaces having a profile, in a cross-section parallel to the fluid flow direction and to the post, and a second pair of generally smooth converging inner wall surfaces, generally transverse to the first pair of inner wall surfaces, narrowing in the downstream direction, and having a curved profile in a plane perpendicular to the fluid introduction port and parallel to a longitudinal direction of the fluid introduction port.

6. The device according to Claim 15, wherein the measuring duct narrows to at least a position where an upstream end of the flow rate detector is located.

7. The device according to Claim 15, wherein the measuring duct narrows to at least a position where a flow rate detecting element of the flow rate detector is located.

8. The device according to Claim 15, wherein the fluid introduction port has, in a plane perpendicular to the fluid flow, a closed curve shape.

9. The device according to Claim 15, wherein the measuring duct has a first pair of generally smooth, converging inner wall surfaces, narrowing toward a downstream direction of the fluid flow, each of the smooth inner wall surfaces having a profile, in a cross-section parallel to the fluid flow direction and to the post, and a second pair of inner wall surfaces, generally transverse to the first pair of inner wall surfaces, and extending from a location upstream of the flow rate detector to the flow rate detector and narrowing toward the downstream direction, in a transverse direction of the fluid introduction port.

10. The device according to Claim 19, wherein the measuring duct includes a notch at the single hole.

11. The device according to Claim 15, wherein the measuring duct includes an outer wall surface that, at least in part, extends outwardly.

12. The device according to Claim 15, including projections located on the duct near the fluid introduction port and extending in an upstream direction.

13. The device according to Claim 12, wherein the fluid introduction port has a substantially rectangular shape in a plane transverse to the fluid flow, and the projections are located at least one pair of long sides and short sides of the fluid introduction port, the projections being parallel plates.

14. The device according to Claim 15, wherein the post extends into the fluid passage through an opening in a side wall of the fluid passage.

15. A flow rate measuring device comprising:

a post located in a fluid passage, the fluid passage passing a fluid flow and the post extending across a part of the fluid flow;

a measuring duct in the post, the measuring duct including a fluid introduction port having an elongated shape confronting a flow direction of the fluid flow, the elongated shape having a maximum inside dimension in a longitudinal direction and an inside dimension in a transverse direction, perpendicular to the longitudinal direction and smaller than the

than the maximum inside dimension, the longitudinal and transverse directions being perpendicular to the fluid flow; and

a flow rate detector located in the measuring duct and comprising a substantially plate-shaped mounting member extending along the fluid flow and bridging the measuring duct, substantially parallel to the longitudinal direction of the elongated shape of the fluid introduction port, and a flow rate detection element on a main surface of the mounting member, wherein the measuring duct has a portion extending from the fluid introduction port to the flow rate detector substantially smoothly narrowing along the longitudinal direction of the elongated shape.

17. The device according to Claim 4, wherein each of the curved profiles include an inflection point.

19. The device according to Claim 15, wherein the portion from the fluid introduction port to the flow rate detector comprises a single hole.